



# Montana Watershed Management (TMDL) Strategic Plan



## 1.0 INTRODUCTION, BACKGROUND AND PLAN PURPOSE

The Watershed Management Program (WMP) is an integral part of fulfilling the Water Quality Division goal to support and implement measures to conserve Montana water resources and ensure clean lakes, streams and rivers remain part of Montana's natural heritage.

A watershed is the geographic area through which water flows across the land and drains into a common body of water, like a stream or a lake. Watersheds are usually separated from one another by naturally elevated areas. The quality and quantity of water running in to our waterbodies is affected by all activities on the landscape including roadways, urban development, grazing, agriculture, mining, and industries within a watershed.

The Watershed Management Program focuses on water quality and identifies sources of pollution to streams, rivers, and lakes within Montana. We also determine the amount of pollution those waters can sustain and still fully support beneficial uses. We then write plans that outline how to reduce pollution to those waters, also known as total maximum daily loads (TMDLs). Finally, we assist local communities with finding solutions to restore and maintain clean water.

This plan describes the 20-year vision of the WMP and the strategy we will use to meet this vision.

## 2.0 MISSIONS AND WMP VISION

The Watershed Management Program is in the Water Protection Bureau and works closely with the Water Quality Planning Bureau to ensure the mission of the DEQ and WQD are carried out:

**WQPB Mission** - *to assure that water quality is maintained and improved so that state waters can support all their beneficial uses.*

**WPB Mission** - *to prevent surface and ground water pollution by review of known and potential sources of pollution, issuance of discharge permits, and providing resources.*

**Watershed Management Program 20 Year Vision** -

*TMDLs and associated water quality planning documents interpret scientific information into meaningful recommendations aimed at maintaining, improving, and protecting water quality and building resilient Montana communities.*

### 3.0 WHAT THE WATERSHED MANAGEMENT PROGRAM DOES AND WHY

The WMP fulfills state and federal statutory requirements through the development of TMDLs that inform the citizens of Montana on the quality of impaired surface waters and the pathway toward meeting their beneficial uses. The total set of TMDLs that need to be addressed are those water body – pollutant combinations within Category 5 of the Integrated Report, alternately referred to as Montana’s 303(d) List. The driver for TMDL development is Montana State Law and the Federal Clean Water Act and Montana State Law.

The WMP is integral to DEQ’s overall programmatic efforts to evaluate and protect water quality. TMDLs address cumulative impacts from nonpoint and point sources of pollutants, typically at a watershed scale, and the process for developing TMDLs involves the application and interpretation of water quality standards and state law across Montana. TMDLs are incorporated into a final document that typically includes restoration goals to address pollution. During TMDL development, the program provides interim TMDL development products such as program information, draft TMDL analyses, and project status updates to stakeholders and the public.

The TMDL development process includes the following components:

- Verification of a water body’s impairment status and causes/pollutants of concern (MAS and WMP)
- Coordinating internal project meetings including representatives from MAS, WMP, Nonpoint source program (NPS), Permitting, Wetlands, Water Quality Standards, etc.
- Project planning (MAS, WMP, and NPS)
- Work with internal and external stakeholders for water quality assessment activities, WAG formation, review and input (MAS and WMP)
- Organizing, analyzing, and summarizing water quality data
- Establishing TMDL water quality targets
- Assessing pollutant sources and quantifying loads (model calibration, targeted sampling)
- Developing waste load allocations for a broad range of permitted facilities in coordination with permitting
- Determining water body loading capacities, setting TMDLs, and allocating pollutant loads
- Developing TMDL implementation guidance and adaptive management recommendations to assist stakeholders in meeting TMDLs
- EPA review and approval

Currently, WMP staff mainly focus on TMDL development. However, the program requires a broad range of skills and knowledge and because of that WMP staff may assist the Monitoring and Assessment Section (MAS) with stream stratification, sampling location determinations, assessment method refinement, target setting, etc.; and also assist the Non-Point Source Program with interpretation of TMDL source assessments, load reduction goals, 319 project input/management, and public outreach regarding approaches to improve water quality. This also ensures a smooth transition from monitoring and assessment through TMDL implementation.

## 4.0 WATERSHED MANAGEMENT OBJECTIVES, STRATEGIES, AND TRACKING

The Watershed Management Program has four primary objectives:

**Objective 1: Examine Water Quality Problems and Solutions**

Continue to develop credible TMDLs across the state to address water quality impairments and new concerns and sources of pollution, as they arise

**Objective 2: Make Understanding Water Quality Easier**

Improve TMDL products to better facilitate public outreach, nonpoint-source project development, and permitting program implementation

**Objective 3: Provide Expertise**

Provide expertise and input internally to ensure smooth transitions from monitoring and assessment through on-the-ground implementation

**Objective 4: Collaborate and Maximize Resources**

Work with appropriate internal and external partners to ensure a high level of program coordination for prioritizing TMDLs, implementing TMDLs, and maximizing efficiencies

### 4.1 OBJECTIVE 1 – EXAMINE WATER QUALITY PROBLEMS AND SOLUTIONS

Continue to develop credible TMDLs across the state to address water quality impairments and new concerns and sources of pollution, as they arise:

**Strategies:**

- TMDLs address all CWA and Montana state law requirements
- TMDL development is responsive to regulatory actions including subdivision, discharge permitting, and mining
- Develop data driven source assessments (initial input on data collection, additional field work, modeling, etc.)
- Develop TMDLs that account for future challenges (growth, drought, flooding, climate change)
- Develop TMDLs based on data that has been through the DEQ QA/QC process
- Develop TMDLs using peer-reviewed methods and analyses
- Update previously developed TMDLs to incorporate new information or address new issues

**Tracking:**

- *Number of approved TMDLs – individual pollutant waterbody combinations, documents, updates, etc.*

## 4.2 OBJECTIVE 2 – MAKE UNDERSTANDING WATER QUALITY EASIER

Improve TMDL products to better facilitate public outreach, nonpoint-source project development, and permitting program implementation:

### Strategies:

- TMDL process facilitates measurable improvements in water quality by translating scientific information into guidance for internal and external stakeholders; informing WRPs, 319 projects, 319 project evaluations, TIES, permits, and wetland program development
- Create materials that are succinct and easily interpretable by decision makers, agencies, and the public
- Develop source assessments and allocations that facilitate on-the-ground solutions resulting in measurable water quality improvements; promote riparian/wetland areas, PS/NPS nutrient trading, etc.
- Provide clear and transparent documentation of datasets and analyses used for TMDL development
- Continually adapt processes by seeking out successes of other programs and our own
- Have an active social media presence – contribute to DEQ established accounts

### Tracking:

**Many of the TMDL tracking items intentionally match NPS Vision tracking outputs and outcomes**

- *Number of WRPs that follow a TMDL*
- *Number of WRPs that the WMP has reviewed and aided in developing*
- *Number of 319 applications and projects that implement specific TMDL recommendations*
- *Number of 319 projects that implement riparian and wetland projects*
- *Number of MPDES permits with permit limits or conditions influenced by TMDL development*
- *Instances of TMDL recommended point source nutrient “trading” with upstream and downstream non-point sources*
- *Measurable increase in number of watershed groups and overall capacity in areas with TMDLs*
- *Measurable increase in followers/likes for TMDL related work on DEQ social media outlets*

## 4.3 OBJECTIVE 3 - PROVIDE EXPERTISE

Provide expertise and input internally to ensure smooth transitions from monitoring and assessment through on-the-ground implementation:

### Strategies:

- Develop and retain knowledgeable and credible staff through technical trainings, field work/project site visits, and meetings with project stakeholders
- Assist MAS with recommendations on sampling locations for source assessment purposes, target setting for sediment and temperature assessments, and stratifications for watershed projects
- Assist with development of NPS program products including TIEs, WRPs, 319 project management, and project effectiveness reviews
- Developing waste load allocations for a board range of permitted facilities in coordination with permitting

- TMDL document interpretation
- Water Quality Division project work (dashboards, committees, story maps, etc.)

**Tracking:**

- *Number and type of technical trainings, site visits, and meetings with stakeholders*
- *Number of stratifications*
- *Number of WRPs, TIEs, 319 projects that had TMDL staff assistance*
- *Number of waterbodies that are no longer impaired for a pollutant that have worked through the TMDL process*
- *Number of TMDL documents with enhanced WLA documentation developed*

## **4.4 OBJECTIVE 4 – COLLABORATE AND MAXIMIZE RESOURCES**

Work with appropriate internal and external partners to ensure a high level of program coordination for prioritizing TMDLs, implementing TMDLs, and maximizing efficiencies:

**Strategies:**

- Coordinate within the agency (early planning with monitoring and assessment, non-point source program, permitting, and other sections to determine targeted watersheds, develop project plans, SAPs, etc.)
- Collaborate with other agencies (local, state, federal, tribal) for input during the TMDL development process and to maximize efficiencies, resources, and opportunities
- Involve and engage local stakeholders, agencies, STAG, and WAG early in the TMDL development process to receive continual document feedback and adapt based on recommendations
- Increase stakeholder interaction during the TMDL process to increase public awareness, get buy-in, and drum-up interest in landowner participation in the 319 program
- Integrate projects/data/pics/info with other DEQ programs in an enterprise/cloud database to provide services like interactive mapping

**Tracking:**

- *Measured through documented coordination on TMDL development projects*
- *Measured through number of interested parties for TMDL projects and number of participants in meetings*

## **5.0 APPROACHES AND PRODUCTS TO ACHIEVE OBJECTIVES**

### **5.1 APPROACHES AND TIMING**

All approaches are based on staff availability, environmental impact, and competing demand for TMDL development. Section 6.0 details how these approaches are prioritized. Note that the resulting priorities under each approach may only address a subset of impaired waterbodies or impairment causes (e.g., nutrients only).

#### **Watershed scale approach:**

Develop TMDLs following a watershed-wide assessment process by MAS. These will most likely occur in areas where assessment and TMDL development have not already occurred and where there is stakeholder interest and coordination in water quality implementation activities.

##### **Timing:**

1-2 year priorities: Madison, Beaverhead

2-6 year priorities: Musselshell, Red Rock

Beyond 6 years: None scheduled

#### **Permitted point sources:**

Develop TMDLs in response to new water quality discharge permit applications. These will either be completed in 90 days or an extended time-period will be negotiated with the permittee. Additionally, develop TMDLs in waterbodies that have existing point sources and no TMDL, to improve water quality and SRF funding cycles will be considered.

##### **Timing:**

1-2 year priorities: Sheep Creek (dependent on MPDES permitting timeline)

2-6 year priorities: Missouri River

Beyond 6 years: None scheduled

#### **Protective Plan**

Develop protective plans, consistent with the TMDL development process, in areas with high quality waters or in areas that are on the edge of trending downward. These could require a beneficial use assessment, using newer data, which would require advanced planning with MAS.

##### **Timing:**

1-2 year priorities: None scheduled

2-6 year priorities: Bitterroot Nutrient Protective Plan

Beyond 6 years: None scheduled

#### **NPS Focus Watershed:**

TMDLs will be developed in focus areas where we are already concentrating NPS and MAS resources. Most likely these will occur in watersheds with some existing TMDLs, and TMDL development will focus on those waterbodies or waterbody-pollutant combinations that were not yet addressed. Consideration will be given to the linkage between pollutants and sources to decide whether additional assessment

and TMDL work will add value toward getting projects implemented and resulting in water quality improvements.

**Timing:**

1-2 year priorities: None scheduled

2-6 year priorities: None scheduled

Beyond 6 years: None scheduled

**Large rivers and lakes:**

Assess and develop TMDLs for large rivers or lakes where other sections in the DEQ are developing standards, monitoring protocols, or assessment methods resulting in large scale data collection and analysis. Point sources are a main consideration in this approach, with nutrients as the primary pollutant of interest.

**Timing:**

1-2 year priorities: Tongue River

2-6 year priorities: Yellowstone River, Missouri River

Beyond 6 years: None scheduled

**TMDL updates:**

Revise or update TMDLs as needed. These updates could arise with new point sources or as a result of efforts to implement or further evaluate the TMDL. Some of these updates may result from TIE development or other activities within a NPS Focus Watersheds.

**Timing:**

1-2 year priorities: None scheduled

2-6 year priorities: None scheduled

Beyond 6 years: None scheduled

**Alternative TMDLs**

Alternative TMDLs are a near-term plan, or description of actions, with a schedule and milestones, that are more immediately beneficial or practicable to achieving WQS. These may help interested groups address WRP “essential elements” requirements without having a formal TMDL document, potentially making projects eligible for 319 funding. However, if alternative TMDL workloads are comparable to a traditional TMDL workload, traditional TMDLs will be developed unless there is a compelling reason to pursue an alternate plan. Alternative TMDLs would require collaborative monitoring, assessment, and source/TMDL components. An alternative TMDL approach does not alleviate federal and state requirements of developing a TMDL, if the impairment remains.

**Timing:**

None scheduled – benefits of this approach and applicable locations are still being evaluated

**Stakeholder interest:**

Develop TMDLs based on input from interested stakeholders; most likely on waterbodies with issues that are significantly impacting the local population or have a high resource value.

**Timing:**

1-2 year priorities: None scheduled

2-6 year priorities: Armells Creek

Beyond 6 years: None scheduled

## **5.2 PRODUCTS**

### **Existing products**

- TMDL priority areas and completed projects – program map
- TMDL project plan - define the final project scope determination (made in coordination with MAS and NPS)
- Project schedule (routinely updated)
- Watershed advisory group formation and outreach, contact info list, and correspondence records
- Source quantification monitoring SAPs
- Stratification (for sediment streams at a minimum)
- Project contract management (contract language, deliverables, etc.) if needed
- Modeling QAPPs and related modeling documentation where required
- TMDL development
  - Watershed characterization
  - Water quality data summary
  - Water quality targets – (often developed based on interpretation of narrative criteria)
  - Pollutant source assessment (model calibration, targeted sampling)
  - Pollutant source load quantification
  - Loading analysis, TMDLs, and allocations
  - Margins of Safety (MOS); and
  - TMDL implementation guidance and adaptive management recommendations
- Wiki, webpage updates, etc.
- Stakeholder presentations/Public meetings

### **New products**

- Enhanced TMDL implementation section that summarizes issues stream by stream (available as separate document section, story map, and/or brochure)
- Story map for each project area that includes map of assessed sites, source assessment, and general approach for TMDL development upon project initiation
- Create report-card-like status for streams in NPS Focus Watersheds, where MAS and NPS are working in (Possibly using CWAIC interface)
- Implementation recommendations in a brief brochure, story map, or some combination that makes the data and recommendations easy to interpret and easy to find on our website
- Dashboard - Yearly reports in dashboard and maps
- Data summarization in database – this includes anything collected/analyzed that is not currently being uploaded to STORET/EQuIS
  - Upland, Road, Bank Erosion, and Temperature modeling results
  - Photos
  - Source assessment sampling locations

## 6.0 PRIORITIES

For efficiency purposes, Montana DEQ favors a watershed scale approach for developing TMDLs, and therefore sets TMDL development priorities at a watershed scale, although there is allowance for setting priorities at the individual waterbody scale. In setting TMDL priorities, DEQ must incorporate the priority factors within the relevant sections of State Law TMDL Priority Language from State Law (75-5-702) and will consult with the statewide TMDL advisory group (STAG).

### 6.1 TMDL PRIORITY TIMING LEVELS

**Level 1** - Highest level of priority with TMDL completion anticipated within 2 years.

**Level 2** - TMDL completion anticipated within 2 to 6 years; water quality planning activities and other TMDL development support may be in progress.

**Level 3** - TMDL development not started or TMDL completion anticipated beyond 6 years

### 6.2 TMDL PRIORITY SCALES

#### Step 1: Watershed Scale Prioritization

- Identify watersheds. TMDL watersheds generally correspond to TMDL Planning Areas.
- All watershed TMDL priorities are initially set at Level 3 priority.
- Watershed TMDL priority can be changed to Level 1 or Level 2 based on priority factors (see below) applicable to the watershed or a pollutant group (e.g. nutrients) within the watershed. Individual waterbody factors can influence the watershed priority.
- All waterbody TMDL development priorities are set equal to the corresponding watershed priority. If the prioritization is only applicable to a specific pollutant group, then only those specific waterbody – pollutant combinations within the watershed receive the higher priority level.

#### Step 2: Waterbody Scale Prioritization

- Only pursued where there is an apparent need to modify an individual waterbody (or waterbody – pollutant combination) priority from what was developed under Step 1.
- This can result in one or more waterbodies (or waterbody – pollutant combinations) receiving a TMDL priority level that is different from the watershed priority. This implies variable TMDL completion schedules within the watershed. Therefore, this type of priority adjustment should only be pursued where the priority factors or other unique circumstances justify the potential reduction in TMDL development efficiency.
- Example situations where this may occur:
  - A higher priority may be assigned to an individual waterbody where the TMDL is required or could have significant impact on a new discharge permit.

- A lower priority may be assigned where significant standards development is desired and the potential outcome could negate the need for a TMDL on one or more waterbodies.

## **6.3 TMDL PRIORITY FACTORS**

### **Priority Factors with Greatest Influence**

#### ***New Individual Permit Application Factor***

- This overrides all other priority factors, if 75-5-702 (9) applies, then it is a high priority unless there is an alternative schedule that is agreed upon between the applicant and DEQ as allowed under 75-5-702

#### ***Factors linked to Potential Implementation***

- the degree of public interest and support;
- the availability of technology and resources to correct the problems;
- whether actions or voluntary programs that are likely to correct the impairment of a particular waterbody are currently in place;

#### ***Factors linked to Program Coordination***

- state policies and priorities, including the protection and restoration of native fish when appropriate;
- immediate programmatic needs, such as waste load allocations for new permits or permit renewals and load allocations for new nonpoint sources;

#### ***Factors linked to Resource Value***

- whether the waterbody is an important high-quality resource in an early stage of degradation;
- the recreational, economic, and aesthetic importance of a particular waterbody

#### ***Factors linked to Magnitude of Potential Impact to Use***

- the impacts to human health and aquatic life  
*NOTE: Unless there are unique circumstances, this factor will be considered inherently equivalent for all watershed projects and all waterbodies.*

## **Priority Factors with Medium Influence**

### ***Factors linked to Impairment Characteristics***

- The character of the pollutant and the severity and magnitude of water quality standard noncompliance  
*NOTE: This factor will be considered inherently equivalent except that sediment, temperature and metals TMDLs in warm water streams may be of lower priority until further standards or assessment method development; unless this work is integrated within the TMDL development.*

### ***Factors linked to Court Determinations***

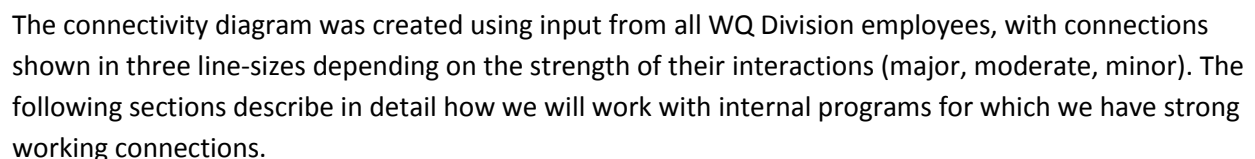
- Court orders and decisions relating to water quality  
*NOTE: This is still a priority influence because of the need to avoid future court orders. Montana will need to maintain a TMDL pace that chips away at the 303d list, approximately 900 TMDLs post 2014.*

## **Priority Factors with Lowest Influence**

### ***Factors linked to General Waterbody Characteristics***

- The beneficial uses established for a waterbody;  
*NOTE: Unless there are unique circumstances, this factor will be considered inherently equivalent for all watershed projects and all waterbodies.*
- The extent that natural factors over which humans have no control are contributing to any impairment  
*NOTE: Unless there are unique circumstances, this factor will be considered inherently equivalent for all watershed projects. If an impairment is predominately due to these type of conditions, then it is possibly an assessment or standards issue that can be addressed outside of TMDL development.*
- The size of the waterbody not achieving standards  
*NOTE: Unless there are unique circumstances associated with size only, this factor will be considered inherently equivalent for all watershed projects.*

The Watershed Management Program (TMDL) is in the Watershed Protection Section (WPS), along with the NPS (319) and Wetlands programs. The WPS is in the Water Protection Bureau, but works closely with sections in the Water Quality Planning Bureau, as illustrated by the weighted line connections within the WQ Division below:



The Watershed Management Program will work with NPS to coordinate:

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- TMDL implementation recommendations and consistent messaging for stakeholder implementation
  - Promote wetlands as areas of water storage, etc
  - Promote riparian areas flood attenuation, bank erosion mitigation, etc.
  - Promote Stormwater BMPs in growth areas
  - Point source nutrient “trading” with upstream non-point sources
- Assistance with WRP development and review
- Assistance with TIE development and review
- Developing methods for project effectiveness evaluations consistent with TMDL methods
- Input on 319 project proposals
- Developing “Alternative TMDLs, where appropriate, to assist with implementation of NPS management activities
- Identifying potential priority locations for TMDL development or TMDL updates, particularly where there are ongoing NPS focus activities in a NPS Focus Watershed or as a recommendation linked to a TMDL Implementation Evaluation
- Interactive tools, such as story maps or dashboards for data or project communication and interpretation
- Increase stakeholder interactions to facilitate public and landowner awareness of and participation in water quality improvement activities

## 7.2 MONITORING AND ASSESSMENT COORDINATION

The Watershed Management Program will work with MAS to coordinate:

- Priority ranking for NPS Focus Watersheds – meet on a yearly basis to prioritize watersheds with MAS/WMP/NPS
- Develop approaches to incorporate external and internal inputs into MAS assessment and TMDL priority development
- Project planning – create project plans and SAPs for new project areas
- Project/stream stratifications – performed by WMP with input from MAS on which streams need stratified
- TMDL support for MAS assessments
  - Data collection and assessment needs for TMDL development
    - Watershed scale approach - Areas where assessment/TMDL development haven’t already occurred
    - Permitted point sources - Get ahead of potential permits
    - Large rivers and lakes – Develop TMDLs for large rivers/lakes where we are developing standards, monitoring protocols, and assessment methods
    - TMDL updates - Revisit areas where we missed major issues or waters and perform assessments and develop TMDLs (either waterbodies we missed, or pollutant types we didn’t address). Opportunities are especially likely to arise in NPS Focus Watersheds or during the TMDL Implementation Evaluation review timeframe.
    - Protective Plan - develop in areas with high quality waters or areas that are on the edge of trending downward and develop protective TMDL
      - May require monitoring to collect more current data to support TMDL development with data

- Perform beneficial use assessments using newer data in advance of protective TMDL
  - Stakeholder interest - as needed. Assess/TMDLs where interested stakeholders request because there is not an assessment or not recent
    - Project scheduling
    - Pollutant source identification
    - Establishing water quality targets
    - Source load quantification
- Stakeholder/landowner outreach, water quality assessment activities
  - Work with MAS to come up with initial stakeholder contact list (WAG start)
  - Participate in sampling events to familiarize with the watershed and local stakeholders
  - Attend and present at initial project meetings with MAS
  - WMP create project development web page (wiki) for stakeholder information and input
- Interactive tools, such as story maps or dashboards, for data or project communication and interpretation

## 7.4 STANDARDS AND MODELING

The Watershed Management Program will work with Standards to coordinate:

- Assessing pollutant sources
  - Targeted sampling
  - Modeling
    - Modeling QAPPs and related modeling documentation where required
- Standards issues that arise either during TMDL development or in anticipation of TMDL development (Tongue River salinity standards, arsenic in Madison, etc.)
- TMDL development for large rivers/lakes where we are developing standards, monitoring protocols, and assessment methods
- Development of Protective TMDLs, also in coordination with the NPS program, in areas with high quality waters or areas that are on the edge of trending downward

## 7.5 INFORMATION MANAGEMENT AND TECHNICAL SERVICE AND IT

The Watershed Management Program will work with IMTS and IT to coordinate:

- Organizing, analyzing, and summarizing water quality data collected by WMP
- Integration of project data/pics/info with other DEQ programs in an interactive map/enterprise database so that people can take a look at their watershed and see ALL of the work that's being done and how DEQ work interacts
- Interactive tools, such as story maps or dashboards for data or project communication and interpretation

## 7.3 PERMITTING

The Watershed Management Program will work with Permitting to coordinate:

- Development of TMDLs in response to new water quality discharge permit (MPDES) applications
  - Development of waste load allocations (WLAs) by WMP
  - Establishment of permit conditions such as monitoring parameters and schedules
- Complete TMDLs in areas with point sources before permit applications come in (ex. Yellowstone)
- Recommendations for point source nutrient “trading” opportunities with upstream non-point sources
- TMDL amendments - As needed and will most likely to arise with new point source or permit renewal

## 7.6 OTHER DEQ PROGRAMS

The Watershed Management Program will work with other DEQ programs:

- Coal/Hard Rock/Openpit Mining - work together on permitting issues that may impact TMDL development
- Compliance – Evaluate stormwater BMPs in areas where they are required
- Director’s Office
  - Have an active presence on the DEQ Twitter, Facebook, and Instagram accounts
  - Develop a story map for each project area that includes map of assessed sites, source assessment, and general approach for TMDL development upon project initiation (an updated version of the wiki in a way)
  - Legal – review of response to comments if necessary
  - Make recommendations on how DEQ further manages a waterbody or broader issues that are discovered during the TMDL development process
- Remediation - compile water quality information and receive input on 319 projects

## 7.7 OUTSIDE ENTITIES

The Watershed Management Program will work with collaborate with other land management agencies (state, federal, tribal) and other entities to maximize efficiencies, resources, and opportunities:

- USFS – continue MOU and yearly communication regarding joint projects and compile water quality information and receive agency input on projects
- NRCS – NWQI projects
- DNRC – State trust land management
- FWP – Future fisheries
- Industry (Weyerhaeuser, mines, WWTP) – document review, etc.
- NGOs (Nature Conservancy, Trout Unlimited, etc) – data collection, sampling input, document review

## 8.0 PROGRAM RISKS

The previous sections of this plan account for the known, but there are possible issues, budget concerns, or special projects that will come up in the next 20 years that may need to be incorporated in to the vision, take priority, or require staff to shuffle tasks and projects. These immediate situations will require flexibility.

### STAFFING

- Staff turnover
  - Loss of institutional knowledge
  - Sufficient number of experienced staff to manage workload/projects
  - Change of division, bureau, section heads and effects on program goals and objectives
- Loss of positions through attrition – budget cuts

### BUDGET

- State funding levels, priorities, and flexibility
- Federal funding levels, priorities, and flexibility

### COORDINATION

- Many tasks/projects rely on products from other sections/Bureaus and depend on their priorities and staffing (like creating methods for analysis and narrative standards interpretation (e.g., for large rivers and lakes)
- The TMDL process requires input from outside stakeholders and agencies, whose time and priorities may not allow for input and review

### SCALE AND INTEREST

- Wide variety of issues across an environmentally diverse, large state
- Larger travel costs for a large state
- Limited stakeholder interest or involvement in some watersheds

### PLAN MODIFICATIONS

- **Internal coordination** – WMP, NPS, and MAS will meet twice a year to compare workplans and adjust for any upcoming changes. The groups will also discuss modifications to vision, mission, and objectives over time
- **External coordination** – Yearly communication with the USFS and NRCS to see if they have any changing priorities, new funding, etc

## **9.0 PLAN REVIEW AND REPORTING**

- Objectives in Section 4 of this document are set up Track objectives with a dashboard or one page yearly update on how things are moving on the plan. Timeline and process for review
- Reporting process
- Communicating successes and lessons learned internally and externally